

MAR 2024

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
DEPARTMENT: NATURAL RESOURCES
PROGRAMME: BSc NATURAL RESOURCE MANAGEMENT
NR 206 (2): FIRE MANAGEMENT

DURATION: 2 hrs

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

Answer **THREE** questions out of the following five questions. You must answer question **ONE** from **SECTION A** and any **TWO** questions from **SECTION B**.

SECTION A (COMPULSORY)

1. (a) Distinguish the following terms:

- | | | |
|-------|----------------------------------|-----------|
| (i) | Straight and solid streams. | [2 Marks] |
| (ii) | Thermal layering and gas cooling | [2 Marks] |
| (iii) | Fire point and flash point | [2 Marks] |
| (iv) | Pyrolysis and vaporisation | [2 Marks] |
| (v) | Ground fires and crown fires | [2 Marks] |

(b) Explain why fire drills are not performed in many Zimbabwean institutions. [10 Marks]

(c) Discuss the notion that local communities should always be part of any wildland fire prevention programme. [10 Marks]

SECTION B

2. 'Wildland fire control by government departments and traditional institutions in Zimbabwe has failed'. Discuss. [20 Marks]

3. (a) Illustrate the parts of a wildland fire. [10 Marks]

(b) Explain the initial action that firefighters should take when suppressing a wildland fire. [10 Marks]

4. Evaluate the role of fire in natural resources management and restoration.

[20 Marks]

5. Discuss the factors that affect wildland fire behaviour.

[20 Marks]

END OF PAPER